

ABSTRACT OF THE DISCLOSURE

A high-speed accessible non-volatile memory device including: a memory cell array which has a plurality of memory cells arranged in a row direction and a column
5 direction, and a precharge voltage supply section. The memory cell has a source region, a drain region, a word gate and a select gate disposed to face a channel region provided between the source region and the drain region, and a non-volatile memory element formed between the word gate and the channel region. The precharge voltage supply section supplies a precharge voltage to all the word gates in the memory cell
10 array during standby mode.